



# **Savitribai Phule Pune University**

(Formerly University of Pune)

**Department of Sports and Physical Education**  
under the  
**Faculty of Inter-disciplinary Studies**

**Syllabus for**  
**Foundation Course in**  
**Fitness and Sports Nutrition**  
**(F. C. F. & S. N.)**

**Credit System**

(Academic Year 2024-2025)

National Education Policy 2020

# FOUNDATION COURSE IN FITNESS AND SPORTS NUTRITION

## OBJECTIVES :-

- To provide the concept and relationship among fitness, sports and nutrition.
- To enable student to understand the basic physiology of human body and the energy systems of the human body.
- To provide detail understanding of macro and micro nutrients; their role, requirement, classification, digestion and absorption.
- To provide knowledge on food selection, macronutrient ratios, micronutrients and human physiology related to digestion and metabolism of food.
- To provide scientific understanding of Ergogenic Aids, Supplements, Fad Diets and Eating Disorders.
- To make student Learn about obtaining essential nutrients from food and supplements and dietary guidelines to support athletic health and performance
- To acquaint student with the guidelines required to prepare diet chart for general fitness , specific sports and therapeutic diets and to provide them hands on experience of preparing basic diet charts.

## DURATION:-

- The duration of the course shall be of three months. (240 hours).
- Each working Day shall consist of three hours.

## ELIGIBILITY FOR ADMISSION :-

- Minimum XII Std. or equivalent examination passed from Govt. Board
- **Age Limit :-** 18 to 60 Years (Both inclusive)
- **Intake Capacity :-** 50 Students

## MEDIUM OF INSTRUCTION AND EXAMINATION :-

Medium of instruction will be in Marathi and /or English and question papers shall be set in Marathi and English.

## ELIGIBILITY FOR APPEARING AT FOUNDATION COURSE IN FITNESS AND SPORTS NUTRITION EXAMINATION:-

Student should have at least 75% Attendance during the Course. He / She should complete all the practical and other related work expected in all parts of the syllabus. A student who misses more than 25% of the scheduled classes will not be allowed to appear for the exam.

## **GENERAL INSTRUCTIONS :-**

- The **Foundation Course in Fitness and Sports Nutrition (F. C. F. & S. N.)** consists of **12 credits**.
- Details of the theoretical and practical components are given in the structure of the program.
- Internal evaluation will follow Continuous Comprehensive Evaluation procedures. Internal evaluation should be done on every credit of each course or minimum two per course as decided by the teacher concerned.

## **RULES & REGULATIONS :-**

The **Foundation Course in Fitness and Sports Nutrition (F. C. F. & S. N.)** will be awarded to a student who completes a total of 12 credits.

### **Each course will have**

- 50 % of marks for Final Examination
- 50 % marks for Internal Assessment

Each core unit will have an Internal (continues) assessment of 50 % of marks and a teacher may select a minimum of two of the following procedures:

- Written Test
  - Lecture / Library Notes
  - Seminar Presentation
  - Short Quizzes
  - Assignments
  - Field Work
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- To pass a student shall have to get minimum aggregate 30% marks in each head of passing (i.e. internal assessment and final examination) and minimum aggregate 40% marks in each course.
  - Internal assessment answer book may be shown to the students concerned but not the final examination answer scripts.
  - While marks will be given for all examinations, they will be converted into grades. The final grade sheets and transcripts will have only grades and grade-points average.
  - To pass a student shall have to get minimum aggregate 40% marks (E and above on grade point scale) in each course.
  - The system of evaluation will be as follows: Each assignment/ test will be evaluated in terms of marks. The marks for separate assignment and the final examination will be added together and converted into a grade and later grade point average. Results will be declared after the final examination which will give grades, grade point average and the

Final Grade.

**EVALUATION SCALE FOR INDIVIDUAL SUBJECT :-**

Percent			Grade	Grade Points
80	to	100	O :	Outstanding 10
70	to	79	A + :	Excellent 09
60	to	69	A :	Very Good 08
55	to	59	B+ :	Good 07
50	to	54	B :	Above Average 06
45	to	49	C :	Average 05
40	to	44	P :	Pass 04
00	to	39	F :	Fail 00
--			Ab :	Absent 00

**The formula for conversion of Grade point average (GPA) into the final grade**

09.00	-	10.00	-	O
08.50	-	08.99	-	A+
07.50	-	08.49	-	A
06.50	-	07.49	-	B+
05.50	-	06.49	-	B
04.25	-	05.49	-	C
04.00	-	04.24	-	P
00.00	-	03..99	-	F

$$\text{CGPA} = \frac{\sum (\text{Grade Points} \times \text{Credits})}{\sum (\text{Earned Credits})}$$

**STRUCTURE OF THE COURSE :-**

Part	Subject Code	Subject Name	Hours	Credits
I Theory	FSN-101	Fundamentals of Fitness, Sports and Nutrition	30	02
	FSN-102	Introduction to Human Physiology & Energy Metabolism	30	02
	FSN-103	Macronutrients , Micronutrients and Hydration	30	02
	FSN-104	Ergogenic Aids, Supplements, Fad Diets and Eating disorders	30	02
	Total Part-I		120	08
II Practical	FSN-105	Meal Planning and preparing Diet Chart (Practical)	120	04
	Total Part-II		120	04
Total Course			240	12

# **SYLLABUS**

## **FSN-101 : Fundamentals of Fitness, Sports and Nutrition**

### **CREDIT 1**

- Introduction to HRPF and SRPF
- Body composition and its assessment
- Morphological Classification of Body Type

### **CREDIT 2**

- Nature and Classification of sports :Aerobic & Anaerobic, Strength & Endurance, Recreational & Competitive
- Concept of Nutrition
- Understanding fitness and Sports specific nutritional requirements

## **FSN 102 : Introduction to Human Physiology & Energy Metabolism**

### **CREDIT 1**

- Physiology of digestive system
- Parts of the digestive system
- Process of Digestion
- Digestion and Absorption of Nutrients

### **CREDIT 2**

- Introduction to Excretory System
- Energy metabolism :
  - Aerobic energy metabolism
  - Anaerobic energy metabolism
- Assessment of Energy requirements
- Recommended Dietary Allowance

## **FSN-103 : Macronutrients , Micronutrients and Hydration**

### **CREDIT 1**

- Concept of Balanced diet and Food Pyramid
- Classification of Nutrients
- Macronutrients : Classification, Function, Digestion and Absorption, Metabolism, Requirement, Source and Role in Human body Health and Exercise
  - Carbohydrates
  - Fats
  - Proteins

### **CREDIT 2**

- Micronutrients : Classification, Requirement, Source and Role in Human body
  - Vitamins
  - Minerals
- Role of Water and Fluids during and after activity
- Maintenance of Electrolyte balance

## **FSN 104 : Ergogenic Aids, Supplements, Fad Diets and Eating Disorders**

### **CREDIT 1**

- Ergogenic Aids: concept, Need and Importance , Ethical considerations
- Supplements : Need and Importance for maintaining general and specific fitness

### **CREDIT 2**

- Fad Diets: History, Concept and Research based interpretations
- Validification of Fad Diets
- Eating Disorders : Symptoms, Causes and Management
- Lesson presentation

## **FSN 105 : Meal Planning and Preparing Diet Chart (Practical)**

### **CREDIT 1**

- Introduction to food and nutrients.
- Meal Planning Principles of meal planning through the life cycle.
- Preparation of basic and general Diet Charts

### **CREDIT 2**

- Concept of exchange list
- Balanced diet
- Diet Planning for various sports – Endurance, Strength, Team sport etc

### **CREDIT 3**

Diet Planning for :-

- Pre-competition, during competition and post-competition meals
- Weight management

### **CREDIT 4**

- Diet Planning for therapeutic/ special conditions
- Nutritional Guidelines to Therapeutic Conditions
- Diabetes Mellitus
- CVDs etc.

## BOOKS FOR REFERENCE:-

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- Manore M and Thompson J. 2000. Sport Nutrition for Health and Performance. Human  
Kinetics, Windsor, ON. ISBN: 9780873229395.
- Mark Kern, Sports Nutrition, Tayloy & Francis Group 2005
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and Human Performance. Baltimore: Lippincott, Williams & Wilkins